



THE RARA RAG

Newsletter of The Rochester Amateur Radio Association, Inc.

Founded in 1931

MARCH 2019
VOLUME 71, ISSUE 7

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PEERING INTO NOT-SO EMPTY SPACE

SCOTT THEIS, W2LW, RARA VICE PRESIDENT

Our presentation in March will take us out of the realm of terrestrial activities and into space. David Bishop will present "Astronomy: Year in Review", a presentation of astronomical photos and events of the past year.

The presentation is packed with pictures of Earth, weather, launches, ISS, the moon, and planets along with deep space pictures and images of galaxies. As part of the presentation, we will also get a peek at recent high-resolution pictures of the surface of Mars and the many new photos of the surface of several asteroids and dwarf planets.

In the mix will be some of the more interesting amateur radio work related to astronomy.

David Bishop has been a member and a former president of ASRAS (Astronomy Section of the Rochester Academy of Science), Rochester's astronomy club. David is the current program coordinator with over two decades of experience in astronomy presentations and programs.

Please join us on Wednesday, March 6th, 2019, 7:00PM at the Boy Scouts Headquarters at 2320 Brighton Henrietta Townline Road, Rochester, New York 14623.



Courtesy NASA

RARA



K2JD

N2EH

W2EOC

Rochester Hamfest 2019

HELLO FROM THE ROCHESTER HAMFEST 2019 COMMITTEE!

- June 1st, 7am - 2pm
- Hilton Exempt Club
- 137 South Avenue
- Hilton, NY 14468

The Hamfest committee has more progress to report!

- Tech Logistics & Services, our breakfast vendor last year, will be back for breakfast and lunch.
- Ed Gable, K2MP, will be doing QSL checking for WAS, VUCC, DXCC, and WAC
- Our collection of raffle and door prizes is up over \$1,000

We'll be reaching out soon to start signing up volunteers for traffic, ticket sales, raffle ticket sales and other roles. We'll put up a link on the website and in the next RAG once we're ready. if you have any questions, please contact hfproducer@rochesterham.org.

Watch future RAGs and <https://www.rochesterham.org/hamfest.htm> for updates.



THE RARA RAG



MARCH 2019



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BOARDZ BUZZ

TIM BROWN, WB2PAY, RARA EDUCATION COORDINATOR

This is my second term on the RARA Board. I continue to be impressed at the drive and commitment of all the board members. Much work goes on behind the scenes to pull off a meeting, public service events, training sessions, the Ham-fest or a social get together. The board is the inner core of the club, but the success of the club lies in its members who volunteer to help.

As Education Coordinator, I am responsible to organize license classes and training workshops. The training programs depend on RARA members sharing their time and talents to make the education projects a success. My thanks go to all those who help.

A special Thank You goes out to the RARA instructors, **Larry Hill, Freddie Sulyma and John Viggiano**, who donate their talents plus 10 weeks of their time to facilitate our License Classes. Amateur Radio continues to grow thanks to these dedicated instructors.

Throughout my 57 years as a ham, I have touched on many aspects of Ham Radio. My most recent endeavor is participating in the RARA XARC CW Group. This group helps Hams who want to learn Morse code. I have a group of 5 hams that I support in their efforts to become proficient in the code. We meet a couple of times a month at my home and I work with them to see how they are progressing. Between meetings, they do daily practice using online programs or Apps on their Smart Phones. I also send them audio files of varying code speeds depending on their skill level.

It is rewarding to see how much they have progressed in just a couple of months of practice.

When I learned Morse code at 5 wpm, it was on a reel to reel paper tape machine where the characters were sent at a slow speed. Research has shown that code is best learned at the speed at which it will be used. This is the Farnsworth Method. Our practice code characters are sent at 20 wpm with group spacing of 8 to 10 wpm. This lets the operator hear the code at a good speed and gives them time to write it down. I am very proud of how well the group is doing and hopefully they will soon be on the air making QSOs. If you wish to learn Morse code or improve your code skills, contact Forest Shick who is the lead person for RXCWG.

Another of my Ham Radio loves is Antennas, Antennas and more Antennas. When I moved to the "country" of Ogden, NY, I traded in my Tower and 5 element Yagi for wire antennas. With almost an acre of land surrounded by "Organic" support structures, I had no choice but to experiment with full size Loop Antennas for 80 and 40 meters. THEY WORK GREAT.

In addition to putting up and testing my own antennas, I enjoy helping other hams with their installations. I do not have an Air Cannon rather I use an under-hand horseshoe tossing technique with a light weight string and heavy carabi-

neer to get the antenna cord over a tree limb. No I don't get 100+ feet high, but I do reach a good 30-35 feet which is suitable for most installations. Another unconventional item I use is D carabineers to connect my antenna end insulators to the antenna cord. These allow easy disconnect if I need to modify the antenna.

Yes, I have used Commercial antennas, but I find fabricating my own very rewarding.

I encourage all RARA members to enjoy the many facets of Amateur Radio. Share your time and talents. Volunteer to help on an event or project. Don't be a spectator, be a participant!

CALENDAR OF EVENTS

WEDNESDAY MARCH 6, 2019 - RARA General Meeting
7:00 PM at BSA Headquarters
2320 Brighton Henrietta Town Line Rd

Thursday March 7, 2019 - RARA Board of Directors
5:45 PM at Novaworks, 333 Metro Park, F-500

Saturday March 16, 2019 - RARA VE Testing
9:45 AM RIT Kate Gleason College of Engineering, Room 9-3139

SATURDAY JUNE 1, 2019 - ROCHESTER HAMFEST 2019

K2GXT LENDS A HAND WITH RADIO MERIT BADGE

MARK PEDERSEN, KC2UES

K2GXT, RIT's amateur radio station, and its officers and advisor, along with RARA members supported the local Boy Scout District's 15th Annual Merit Badge University on Saturday, February 9th. Parth Sane, President, and Scott Czeck, Treasurer, as well as RARA members Jim Stefano (the club's advisor), Stephen Fell, and Mark Pedersen, provided a ½ day radio merit badge class in the club's station. Although most of the merit badge requirements cover radio theory, regulation of the airwaves, and propagation, the hands-on portion made use of the club's HF and VHF radios to meet the final requirement of the badge. The enrolled students completed all the requirements and were free to attend one of the other 44 merit badge sessions being held at RIT. In all, about 550 Scouts added to RIT's student population on Saturday for merit badge classes from American Labor to Weather.

The next scheduled radio merit badge class will be held by organizations in Tennessee, Arkansas, and Pennsylvania.

In our area, Eagle Flight will offer the radio merit badge to Scouts during the session from July 28 through August 2, 2019, at Babcock-Hovey Boy Scout Camp. RARA has supported Eagle Flight in the past with the loan of a radio and

antennas, and by pre-arranging contacts with Tim Brown, a RARA board member. Having a pre-arranged contact made it easy to complete the requirement that Scouts "Using proper call signs, Q signals, and abbreviations, carry on a 10 minute...amateur radio contact using voice, Morse code, or digital mode." If you are willing to assist, please send a message to mpeder21@gmail.com to let Mark Pedersen (KC2UES) know you can be available for HF radio contacts by Scouts during Eagle Flight week.



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RADIO ASTRONOMY REPORT – YEAR IN REVIEW

MARTIN PEPE

Amateur **Radio Astronomy** is still in its infancy. It seems a crossover group of Astronomers and Ham Radio operators are beginning to be the most significant contributors to this emerging field. Organizations like the Society of Amateur Radio Astronomers ([SARA](#)) are growing.

Why the local interest? Well, living in Western New York, we don't always get the best observing conditions (like out west). The table (at right) puts Buffalo & Rochester amongst the top ten cloudiest nationally, notice the cluster around the Great Lakes. Days of partial cloud cover are more common in **Buffalo** than in Seattle or Portland. Cloudy Skies? Then switch, to a longer wavelength, (it pierces the cloud cover)!

So far, our Radio Astronomy work has centered around [RIT College](#) & [ASRAS](#) with three major projects. A Radio Telescope to study the RF signature of Sunspots ([Callisto](#)), Study of the radio emissions from Jupiter ([Radio Jove](#)), and a small radio telescope ([IBT](#)) to demonstrate radio telescope principles in the **classroom**. This is the fourth year we've been blessed by a close involvement with RIT's [MSD](#) program, it's the ultimate educational outreach program. Imagine, student developed projects, live, complete with all the 'Book' AND **Real-World** problems that have to be solved.

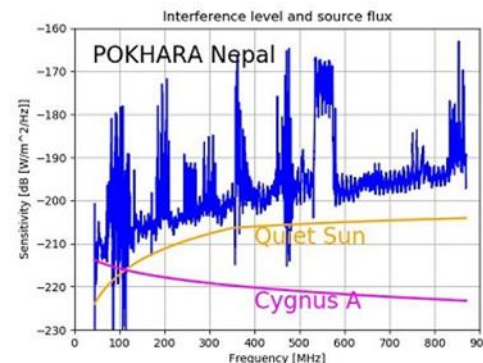
Solar Spectrometer - Our number one priority project is an Autonomous (unattended, no hands!) Solar Spectrometer, to study the RF signature of Sunspots. It has been a multi-year development, with critical modules designed, built, and delivered each year. Multi-disciplinary teams of between 4 to 6 students have taken a critical function to the operation of this telescope, and carried it through from concept to build and delivery. The hardware and software are built by them, NOT designed, and then farmed out to an external vendor. In some cases, the learning curve is quite steep (and bumpy), but in every case the rewards have been tangible. They have learned that there's a long path from an idea 'in one's head' to a delivered, reliable, working system. Employers have said it's one of the

City - Days of Heavy Cloud Cover	
Seattle, Washington	226
Portland, Oregon	222
Buffalo, New York	208
Pittsburgh, Pennsylvania	203
Cleveland, Ohio	202
Rochester, New York	200
Columbus, Ohio	190
Cincinnati, Ohio	186
Detroit, Michigan	185



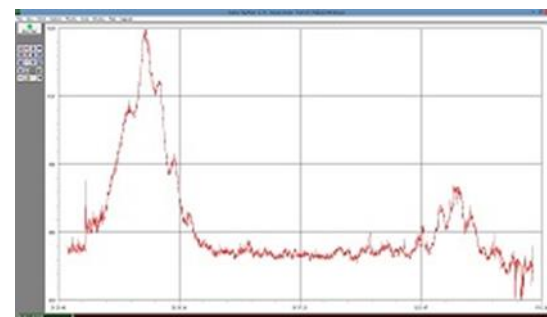
most effective college programs they've experienced, and thus these graduates are in very high demand.

Critical Modules developed so far, are; 1) A computer controlled motorized Right Ascension and Declination mount for pointing the 7-foot RT dish. 2) A PC based system that can wake itself up in the morning, track the Sun, put itself to bed at night, and send its data to Zurich, Switzerland for global use by professional Helio-Scientists. 3) A dual receiver (stereo) with one channel receiving the Sun's signature, and the other measuring the 'local' interference. 4) And this year's 'icing-on-the cake' is to then subtract the local 'noise' from the desired Sun signal. This will be a MAJOR improvement in dynamic range and sensitivity. Even relatively remote places like Nepal have such a level of RF noise, as to make most Sun signals un-detectable (upper right). Thought for the day - '*Do you know what your Sun is doing today?*'



Our second project has been to implement a **NASA** program called [Radio Jove](#), to study the RF emissions from the planet **Jupiter**. The motions of Jupiter's Moons (mostly **Io** and **Europa**) with the planet's intense magnetic fields, produces radio emissions in the mid frequency range of 18 – 32 Mhz. (Actual **DATA** from Ionia - right). These signals were discovered totally by accident, when scientists were looking at the celestial background noise.

We have been blessed with two NASA receivers, one for development and one placed in the Farash building's Ionia site classroom. Our 2019 intentions are to get a RF calibrator for this unit, and enable this system to be available on-line, for Rochester area schools. Classroom lesson plans are now available direct from [NASA's](#) website; [Class Exercises](#). No longer does Radio Astronomy, math and science have to be limited to just *dry* 'book' concepts, now they can be experienced, first hand, for a lasting (*internalized*) remembrance, by young adults. Data can actually be shared and compared amongst classes and schools across the country!



Our third outreach project is a hands-on in-class lesson in the physics of working radio telescope principles. This is an adaption of a DBS (Direct TV like) dish to show how everything that's above absolute zero (**0*K > -273°C**) temper-

ature is giving off heat and radio waves. Your (warm) body gives off Radio Waves. This unit is called an IBT (Itty Bitty Telescope). It is portable, battery operated, and is 'at home' in middle to high school classrooms. It can even be used to detect Geosynchronous satellites in their 'parked' orbits. We demonstrated this at NEAF (northeast astronomy forum) and have used it for Boy Scout troupes at Ionia with great success. Our goal is to make it available to groups visiting Ionia, and building more to 'loan out' as we do regular 'optical' telescopes. This year we've started to characterize components, so to be able to build duplicates.



I'm hoping that this coming year we will see the fruits of these extended efforts with some real data, experienced in the classroom. Besides the hardware for these projects, we now have software and exercises for **in the Classroom**.

Next year we hope to start on some new radio telescope concepts. A video interferometer to generate high resolution 'images' of the Sun's surface. This project had to be delayed, due to student manpower issues. The foresight and patience of the Farash Foundation is greatly appreciated in understanding that astronomy comes in many wavelengths. I will be personally delighted to see little faces light up in seeing middle and high school science come out of a book or poster and become a 'hands on' experience, that will be everlasting, something that they can talk about to family, friends, and **their** children.

CLUB STATION REQUIREMENTS COMMITTEE

SCOTT THEIS, W2LW, RARA VICE PRESIDENT

We will be holding our second meeting at 6:00PM Thursday March 14th at 333 Metro Park, Suite F-500, Brighton (Novaworks, LLC, Suite F-500 'B' Area). In the last meeting we organized some of the base requirements. The purpose of this meeting will be to further discuss these items as well as the overarching committee goals for the eventual creation of the Station Requirements document to be submitted to the RARA Board of Directors. If you feel you have background or knowledge that could help in this endeavor, please feel participate!

If you would like to participate, please contact me at vicepresident@rochesterham.org by March 12th. I will also send the current outline of requirements to participants. Thanks!

MARCH RAFFLE

February Raffle prizes are pictured below:

- In Line DC Multi Meter
- Helping Hands Magnifier and LED Light
- RED 99Volt DVM

Coming in April
2 Pole Coax Switch



EDUCATION

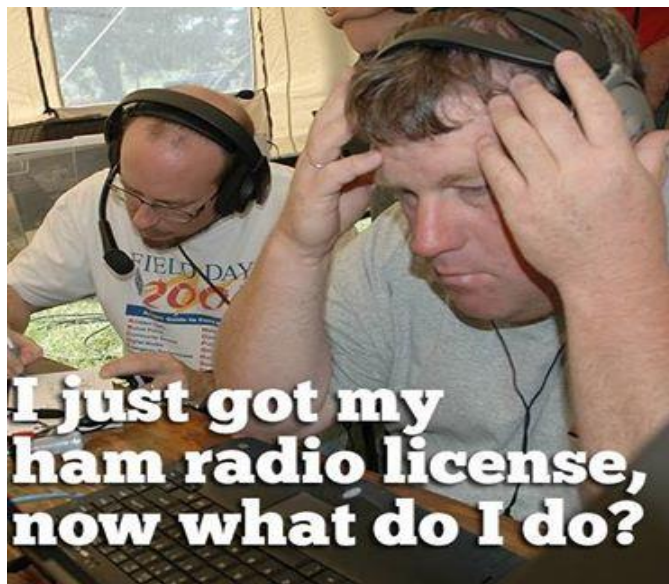
TIM BROWN, WB2PAY, RARA EDUCATION COORDINATOR

THE ELMERS CORNER

At each RARA General meeting, there will be an ELMER available from 6:15PM to 6:45PM to answer questions and assist with technical advice.

To do justice to your questions, we will devote 30 minutes prior to the beginning of the meeting to give your questions the attention they deserve.

RARA's ELMERS will help you with your questions. If the ELMERS do not have the answer, they will get back to you with the information.



LICENSE CLASSES — WINTER/SPRING 2019

The Extra Class began Tuesday 12 February 6:30 to 8:30 PM, in Gannett Hall room 2235 (Harris Think Tank). Late registrations will be accepted.

Amateur Technician and General licensing classes are held Tuesday evenings 7pm - 9:30pm beginning February 26, 2019.

Classes run for 10 weeks with FREE testing on the 11th week. Classes are held at RIT in the Gleason Engineering building. The Technician class will be in room 9-3139. The General class is in room 9-3129.

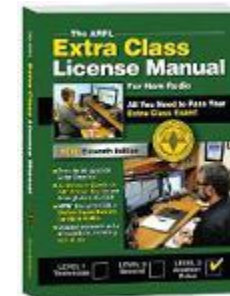
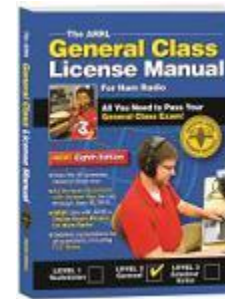
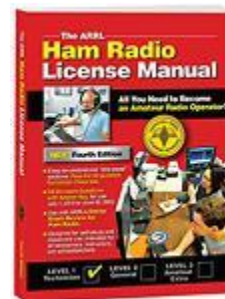
https://www.rochesterham.org/license_courses.htm

Licensing courses are FREE to current members and only \$15.00 for non-members.

Not a current RARA member?

<https://www.rochesterham.org/membership.htm>

ARRL Licensing manuals may be purchased the first night of class for the discounted rate of \$25.00. Please make checks payable to RARA or have exact cash amount.



In order to have sufficient License Manuals and to keep you updated on any schedule changes, please pre-register at <mailto:education@rochesterham.org>

RARA ACADEMY WORKSHOPS

PLEASE NOTE NEW LOCATIONS

Academy Training Workshops will be held at community meeting locations around Monroe County.

MARCH — ELECTRONIC COMPONENTS March 9th, 2019(10am-Noon)

Session will be held at the **Pittsford Community Center, 35 Lincoln Avenue, Room 19, Pittsford, NY 14534.**

For the March Academy we will have a jam-packed discussion of the basic properties of common electronic components.

The goal is to give participants a basic understanding of common parts for kit building and basic repair.

We will cover the basic components, their characteristics, schematics symbols, uses, how to read them and how to test some of them.

Types will include:

- Passive Components such as: resistors, capacitors, inductors, diodes, re-lays, lamps and indicators, wire gauges & ratings, connectors etc.
 - Active Components such as: transistors, ICs, tubes, opto-couplers, etc.
 - Assemblies and Modules, such as: displays, controllers, RF modules, etc.
- Basic Testing of Components

This Session will be hosted by Scott Theis, W2LW

APRIL — APRS Applications and Weather Stations **April 6th, 2019 (10am-Noon)**

Session will be held at the **Five Star Bank City Gate Office, Community Room, 395 Westfall Road, Rochester, NY 14620**

This Session will be hosted by Don Kiser, AC2EV and Jon Dickason, N2JAC

* * * * *

Latest Academy information is available at

https://www.rochesterham.org/rara_academy.htm

Academy Workshops are FREE and held from 10am to noon at Community Meeting Rooms throughout the county.

Sign up for Academy Workshops by emailing
<mailto:education@rochesterham.org>

Please take advantage of these RARA sponsored training and operating opportunities.

MARCH 2019 PUBLIC SERVICE UPDATE

MIKE MOORE, KC2NM, RARA PUBLIC SERVICE COORDINATOR

Please take a minute to visit our Public Service webpage and sign up for a few of the great events coming in 2019. Feel free to bring along a friend or spouse even if they are not a HAM. This is also a great opportunity for new HAMS to sharpen your radio skills. All you need is a mobile and/or portable VHF and/or UHF radio and a desire to get out of the shack and really do something worthwhile to help yourself and others.

http://rochesterham.org/public_service.htm

Upcoming Events:

Tour de Cure	Xerox Campus Webster	Saturday	June 8, 2019
Bike MS: ROC the Ride	Genesee Valley Park - Rochester, NY	Saturday	August 24, 2019
Fairport Lift Bridge Regatta	Erie Canal – Fairport, NY	Saturday	Sept. 28, 2019
Jamboree On the Air	Camp Babcock Hovey	Saturday	Oct. 19, 2019

WHAT'S A RARA FAMILY MEMBER?

SUSAN AIELLO

As the spouse of an active RARA member (K5KHK), I often get asked, when will I get my license... The answer is a polite 'no thank you'. However, I want to be involved where I can, attending and volunteering at activities, and keeping up on the news.

For just \$5 I became an Associate family member, supporting the club and affording me many member benefits such as free admission to the RARA Hamfest, a RARA name tag / membership card and earning rewards points!

Talk to Membership Secretary Tim Barrett, K9VB for more information on a variety of membership levels that may be right for your spouse or other family members!

RARA WINTERFEST 2019

As usual, our annual Winterfest took place at Stewart Lodge in Mendon Ponds park early in February. We had a great event this year with close to 30 attendees!

Despite the cold, we got three antennas up and were operating 4 different radios. For those of us that don't have good locations for HF antennas, operating in the park with low QRM was a pleasure.

Todd Spath, N2TMS, picking up on a comment at our February presentation that 'nobody runs AM on 2M any more' brought two 2 meter AM rigs and set them up so we could work from one side of the room to the other. I saw several entries in the log he helpfully provided, who says AM is dead?

We had 8 crockpot entries for lunch and a variety of desserts. Naturally chili was a popular cold weather choice, but we also had pulled pork, rice and beans, chicken pasta to name a few, all of which were devoured with enthusiasm.

The winners of our crockpot cookoff by popular vote were:

Tied for 1st place

Jackie, KD2RAE for her chicken pasta dish

Tim, K9VB for spicy chili

2nd place

Todd, N2TMS



Thanks to all those that came; for those that didn't, you missed out and we hope to see you next year!



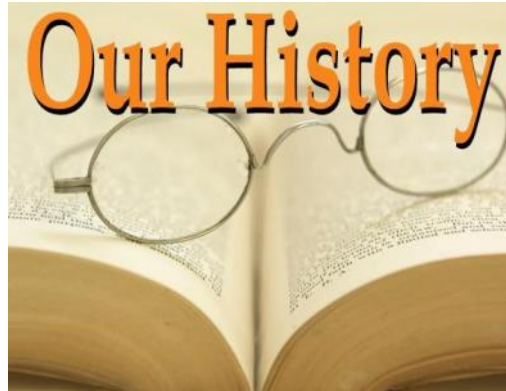
RAGS OF THE PAST

ED GABLE, K2MP, RARA HISTORIAN



40 Years Ago, March 1979

The March meeting brought in hams from RARA who volunteer their services in a little different manner. They were all members of MARS, the Military Affiliate Radio System. The panel consisted of Terry Hahn WA2AGO from Air Force MARS, Ron Jakubowski K2RJ representing Army MARS and Dave Bodner K2ZFM from the Navy. At that time RARA was meeting at the Monroe County Co-operative Extension on Highland Avenue. It was with regret that Jim Collingsworth N2EH (SK) announced his resignation as our ARRL Section Emergency Coordinator. He was cited for his years of dedicated service to WNY and for modernizing emergency communications to include the use of FM and FM repeaters. Writing for the Rochester VHF Group was K2KGE who reported that the group's recently finished 30th anniversary celebration was a great success. Many Charter Members attended and all were pleased when Bruce Kelly W2ICE, brought AWA's vintage "The World Above 50 Mc" slide show out of moth balls for the group to enjoy. The Rochester DX Association (RDXA) members found themselves in rare territory as they gave up their usual game of long range DX communications in favor of a local club net on VHF FM using the Victor 22/82 repeater. A claimed Morse Code sending record was printed in the Rochester D&C indicating U of R Sophomore Chris Reich had sent code for a continuous twenty-four hour period. Sounding like a bargain today, the ARRL announced that membership dues went to eighteen dollars a year. Rochester's well known and equally well liked YL operator, Lia Zwack WA2NFI, announced the start of a new YL net forming on 75 meters. Sadly, Ray Leigh W2SNI, a RARA Old Timer and Charter Member of everything, suffered a heart attack but at press time was convalescing at Strong Hospital. With regret it was reported that George Biddle WD2AIB was reported a Silent Key. From the Want Ads you could buy a Hy-Gain 3806 FM hand held from John Golden W2IRG. The Ham Radio Publishing Group, Greenville, NH, remained a long term commercial advertiser.



20 Years Ago, March 1999

Bob Moore N2USB, Program Chairman, wrote to inform the membership of the next RARA meeting that will feature local satellite expert Walter Obenhofer NQ2O. Walter shared with us the features of the Phase III D Satellite and its current and future status. Walter recently earned the coveted Satellite DXCC award for working 100 countries via satellites and was also very active on VHF and UHF. Tim Magee WB2KAO, RARA Licensing Class Director, announced the spring classes were in the registration stage where all six licensing elements will be taught. Tim also introduced Bill McDonnell KG2F, as the new Extra class theory instructor. President Rick Wells W2RW, in his "Prez Sez..." column encouraged local hams, especially if they have never done so, to put in the effort to attend the Dayton Hamfest. Sure it's an 8-10 hour drive, but well worth the effort for this great experience. Rick further offered this advice, "Leave with an empty trunk to assure room for all the stuff you'll want to bring home." Rick also told of the progress of RARA's new Radio Coaches program and the work with Rochester school 43. Ed Gable's DX Happenings column did in fact make two editions of the Rag and this month announced a new DXCC entity with the addition of E4 from Palestine. The 425 DX List then announced the top five wanted list as P5, A5, VU4, BS7 and 3Y. Ed Holdsworth N2EH (SK), wrote to tell of no less than 12 public service events were penciled in for the calendar year. Our ever present Lloyd Caves WB2EFU (N2PU), continued his multi-year reporting of Rochester Hamfest plans and programming. This issue had part III of the 1999 Rochester Hamfest plans where a feature added program brought Tim Duffy K3LR, ARRL's Contest Advisory Committee Chairman, to speak on Contesting, what else? Last month we introduced an article called "Reflections" where a biography on a particular local amateur would be featured each issue. This month it was on John Woika W8JW, ex-DL5QM. The recently completed Fairport Science in Action Fair, presented by Fairport's Dudley Northside School and with RARA as one of its demonstrators, featured several interesting science displays. RARA's contribution highlighted a radio controlled plane, owned by Warren Boudrie AA2LQ, complete with a miniature ATV camera and transmitter built by Jim Cronin N2VNO. Other RARA participants were John W8JW, Robbie KC2DQN, Charlie KB2SQZ, Peter W2SKY and Paul N2OPW. With regret it was reported Herschel Reed K2TKB, was reported a Silent Key. There were no Want Ads within but a long term commercial advertiser was Glenwood Sales of Hague Street, city, offering a wide and interesting selection of surplus electronic components.

VE TEAM

The next **ALWAYS FREE** testing session:
 Saturday March 16th (Third Saturday)
 Rochester Institute of Technology
 Kate Gleason College of Engineering
 Gleason School of Engineering
 Room 3139, Bldg. 9
 Use "J" parking lot

Registration at 9:45AM
 Testing at 10:00AM

You do not have to preregister.

To avoid giving your SSN go to:

<http://wireless.fcc.gov/uls/index.htm?job=home>

Register and bring the resultant FRN.

For more info:

<https://www.laurelvec.com/?team=RARA>

Don Kiser - AC2EV
 RARA Board member
 VE Team Leader
 585-613-1035

Seth Weith-Glushko	KD2QPI	E	Scott Kirby	KD2REQ	T
David Enright	KD2RER	T	John Ferran Jr	KD2RES	T
Steven Raas	N2JDQ	E	Frank Armstrong	KA2WLT	E
Jacob Felice	KD2RET	T	Donald Vallone Jr	KD2REU	T
William Reese	KD2RKC	G	Robert Marriage	KD2RKD	G
Jonathan Baumler	KD2RCB	G	Peter Gaglio	KD2RKE	T
Serena Flint	KD2RKF	T	Riley Churchill	KD2RKG	G
Wyatt Robinson	KM6TVH	G			

New licensees names are in BOLD

CW ELMERS

Name	Call	Area	Email
Ned Asam	W2NED	Pittsford	w2ned@frontiernet.net
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Pete Fournia	W2SKY	Penfield	pfournia@gmail.com
Bill Hopkins	AA2YV	Brighton	whopkin4@naz.edu
Bob Karz	K2OID	Webster	rkarz@rochester.rr.com
Larry Lavery	WW2J	Fairport	ww2j@arrl.net
Joe Rowe	AG2Y	Webster	ag2y@rochester.rr.com

RADIO ELMERS

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Dave Carlson	N2OA	Batavia	kdcarlso@gmail.com
Lawrence Hill	N2AJX	Henrietta	lawrence.hill@rit.edu
Bill Kasperkoski	WB2SXY	Pittsford	wb2sxy@arrl.net
Don Kiser	AC2EV	N Greece	dkiser100@gmail.com
Karl Heinz Kremer	K5KHK	Chili	k5khk@khk.net
Tim Magee	WB2KAO	Greece	585-704-5747
Peter Schuch	WB2UAQ	Perinton	pschuch@rochester.rr.com
Forest Shick	WA2MZG	Webster	fshick3@gmail.com
Dave Timmons	W2DST	N Greece	dstimmons@gmail.com
Dan Waterstraat	W2DEW	Henrietta	higreen@rochester.rr.com

RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

March 2019						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 AWA Museum Open 1pm - 5pm ARRL DX Contest Novice Rig Roundup Wakeup QRP Sprint Ukraine RTTY Contest
3 ARRL DX Contest Novice Rig Roundup Ukraine RTTY Contest UBA Spring Contest (CW) SARL Hamnet 80M Sim Emer. NSARA Contest	4 Novice Rig Roundup RSGB 80M Club Contest (Data) ARS Spartan Sprint	5 Novice Rig Roundup AGCW YL-CW Party QRP Foxhunt Phone Fray	6 RaRa Monthly Mtg 7:00pm, BSA HQ, Brighton Henrietta TLR ROC City Net 8:00pm 3.826 MHz Novice Rig Roundup CWOps Mini-CWT Test UKEICC 80M Contest	7 RaRa BoD Meeting 5:45pm Nova- works 333 Metro Park Rochester 14623 ARES Net 146.61 MHz 7pm Novice Rig Roundup SKCC & NCCC Sprints QRP Foxhunt	8 Novice Rig Roundup	9 AWA Museum Open 1pm - 5pm Novice Rig Roundup RSGB Commonwealth Contest SKCC Sprintathon OK, ID, QCWA QSO Parties Stew Perry Top Band Challenge EA PSK63 Contest
10 Novice Rig Roundup RSGB Commonwealth Contest SKCC Sprintathon OK, ID, WI QCWA QSO Parties Stew Perry Top Band Challenge EA PSK63 Contest	11	12 QRP Foxhunt Phone Fray	13 ROC City Net 8:00pm 3.826 MHz SIARC 7.30pm CWOps Mini-CWT Test RSGB 80M Club Contest (CW) AWA Jn Rollins Memorial Contest	14 ARES Net 146.61 MHz 7pm AWA Jn Rollins Memorial Contest NCCC Sprint QRP Foxhunt	15	16 AWA Museum Open 1pm - 5pm BARTG HF RTTY Contest Russian DX Contest VA, LA QSO Parties Feld Hell Sprint
17 AWA Jn Rollins Memorial Contest Russian DX Contest VA,QSO Party UBA Spring Contest SSB Run for the Bacon QRP Contest Bucharest Contest	18	19 RDXA 7.30pm Monroe Cty EOC CLARA Chatter party QRP Foxhunt Phone Fray	20 ROC City Net 8:00pm 3.826 MHz CLARA Chatter party CWOps Mini-CWT Test NAQCC CW Sprint	21 ARES Net 146.61 MHz 7pm NCCC Sprint QRP Foxhunt	22	23 AWA Museum Open 1pm - 5pm CLARA Chatter party FOC QSP Party UK/EI CW Contest
24 CLARA Chatter party FOC QSP Party UK/EI CW Contest NA SSB Sprint UBA 6M Contest	25	26 QRP Foxhunt Phone Fray SKCC Sprint	27 ROC City Net 8:00pm 3.826 MHz CWOps Mini-CWT Test	28 Monroe Cty ARES 6pm, Red Cross Center, Prince St RSGB 80M Club Contest, SSB NCCC Sprint QRP Foxhunt	29 Feld Hell Sprint	30 AWA Museum Open 1pm - 5pm CQ WW WPX Contest SSB
31 CQ WW WPX Contest SSB						

NEWS FROM AREA CLUBS

MONROE COUNTY ARES / RACES News

The Monroe County Amateur Radio Emergency Service, Inc. holds its meetings on the fourth Thursday of each month. Anyone interested, members and non-members, are welcome to attend.

The next ARES Meeting will be held on: **Thursday, March 28, 2019, at 6:00 PM.**

Meetings are held at the **Greater Rochester Chapter of the American Red Cross HQ, 50 Prince Street, Rochester, NY 14607.** (Located behind the Rochester Auditorium Theatre, 885 Main St. E.)

ARES NET: Monroe County ARES/RACES meets on the air every Thursday of the month at 7:00 pm, on the 146.61 MHz (-) 110.9 Hz PL repeater. The only exception to that are nights when we hold our regular meeting, generally on the 4th Thursday of the month.

WEB: www.monroecountymcomm.org

Severe Weather Alerts:

Winter brings severe weather in the form of heavy snow and strong winds. If you experience severe weather, especially when accompanied by damage to property in your area, listen to your local ARES/RACES repeaters for information. While official ARES/RACES activation could be a possibility, it is more important that we open a spontaneous net simply to share information about weather conditions in your immediate area. Don't wait for someone else to do it. Pick up the microphone and start a net. Have each check-in station give you a situational awareness report and emergency power report. If you don't have a copy of the directed net protocol, you can find one at the WEB address listed above. (Activities/ARES Net/ Net Script/ Downloads)

ROCHESTER DX ASSOCIATION, RDXA

RDXA meets the 3rd Tuesday of every month (September through May) except for December, which is the Annual Holiday Banquet. Meetings are open to everyone and all are encouraged to attend. The next meeting is Tuesday March 19, 2019



Meetings are held at the Monroe County EOC 1190 Scottsville Rd. (second floor), Rochester, NY 14624 at 7:30PM.

ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRA invites you to attend its March 15, 2019 meeting. Meetings are held on the 3rd Friday of the month in the Pittsford Town Hall Basement starting at 7:30 PM.

March is a special month because it's RRRA's Annual Auction. Set up and socialization will start at 7:00 pm. As usual, 10% of the sold value is paid to the Club by the seller. You do not need to be a member to attend but we could use your support by becoming a member. I will be asking Ed and Dick if they will again be our auctioneers. Watching them work the auction is always entertaining so I hope they will come. Hope to see you at our auction.

The RRRA officers are Bob ODell, N2BZX President, Bob Shewell, N2HJD Vice President, ED Wilkonski, KC2WM Secretary, and Bob Smith, NS2B-Treasurer / Membership Chairman. RRRA also accepts donations to the club. If you are not currently a member and want to support RRRA, you can join at our monthly meeting or on our web site www.k2rra.org

ROCHESTER VHF GROUP

The Rochester VHF Group sponsors an informal On-Air Net every Monday at 2100 local time on 144.260 MHz USB and a 6 Meter Net every Thursday at 2100 local on 50.200 MHz USB.

More club information can be found by visiting www.rvhfg.org or just calling in any Monday or Thursday night. All are welcome to check in to these nets.

XRX AMATEUR RADIO CLUB

The XRX Amateur Radio Club will have their next meeting at 6PM on Thursday March 14th at the Webster Recreation Center. Look for details on our website <http://xarc.us>

AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

ARAST meets the third Thursday of every month at the Town and Country Fire Department on Gardner Rd in Horseheads New York. Chemung County ARES (CCARES) meets the first Tuesday of the month except February at Harris Hill. See www.ccares.info for details. CCARES covers the entire area in Chemung, Schuyler and Steuben counties and all are welcome.

ARAST holds elections in March for Board of Directors for one third of the Board. After the elections, officers are chosen for the next year.

Communicators are needed to help out with the 2019 Wineglass Marathon October 6, 2019 (one week following the Hamfest) . If you would like to help out, contact the emergency coordinator: emergencycoordinator@stny.rr.com .

2019 Hamfest will be the last Saturday of September 2019. Stay tuned for details

Our website is still under construction. It is anticipated that construction will continue well into the year. Until that is finished check us out at www.arast.info .

Don't forget to check out our repeaters when you visit the area. The N3AQ 147.36(+) and the 146.70(-) are the principal 2 meter repeaters. Also, Echolink is available using the call sign KA2BED-R. Check it out. A full list of available repeaters that can be heard in the twin tiers area surrounding Chemung County can be found at www.arst.info/arast_website/public/repeaters.php.

COMMUNITY AMATEUR RADIO CLUB, CARC

If you are interested in being a part of this forward thinking and active club, visit us at a meeting or join us on one of our weekly nets. We meet at the Hoag Library (134 S. Main St. Albion, NY) on the first Saturday of each month at 7PM. Each meeting has a brief training/refresher period with upcoming topics including: net protocol, repeater set-up/maintenance, and digital signaling. The club holds a net every Sunday evening at 8pm (winter) and 9PM (summer) - 0100 UTC Monday - on 147.585 simplex, and we host the Thursday Night Social Net, Thursday at 8:30PM on 147.285+. We'd love to hear you check-in! Take a look at the club website for more info: www.k2srv.org

DIGITAL COMMUNICATIONS ASSOCIATION OF PERINTON, DCAP

DCAP members continue to experiment with leading edge digital communications modes. We were formed in 1994 to foster the development of local and regional packet radio networks using AX25 and TCP/IP. Today we have members using the club sponsored DSTAR repeater (KB2VZS on 444.8MHz), several personal and public [DSTAR hotspots](#) (using the dvprtr board), Yaesu fusion systems on non-club repeaters and DMR. The last mode is being enjoyed locally through a [DV-Mega-Raspberry PI](#) combination. DCAP meets for breakfast at

7AM nearly every Saturday morning at [Rikki's Family Restaurant](#) in Fairport and everyone is welcome to join us. Talk in is on the KB2VZS analog repeater on 146.715 MHz with a PL of 110.9 Hz.

KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

The Keuka Lake Amateur Radio Association is hosting a 2 Meter FM Simplex Challenge open to any licensed amateur operator. The object is to make as many contacts in many different zip code areas as possible in 5 hours.

This will be held May 18, 2019 beginning at 12:00 pm and ending at 5:00 pm local time. Everyone is encouraged to participate and submit their log regardless of how many contacts they have. This is intended as a fun contest to learn about using 2 Meter FM Simplex instead of repeaters, Echolink or digi-modes. This year we are limiting the area to be Steuben County and its immediate surroundings with the goal to be enlarging it in the future. Lets have fun, share the frequencies, help each other and learn together.

For further information, such as the rules, the map of the area, suggested frequencies and exchange please check out our website at www.KLARA.US

We would love to have you join in and lets all have fun together.
73, KD2BPJ Belinda Connor, Keuka Lake Amateur Radio Association

SQUAW ISLAND AMATEUR RADIO CLUB, SIARC

The Squaw Island Amateur Radio Club (SIARC) meets every second Wednesday of the month at 7:30PM at the Ontario County Safety Training Facility, 2914 County Road 48, Town of Hopewell. We have License Exam Testing every other month which begins at 6:30PM. The next meeting will Wednesday, March 13th.

There will be license Exams this month. 73's Steve Benton VP SIARC WB2VMR

WESTSIDE AMATEUR RADIO CLUB

The mission of the Westside Amateur Radio Club is to provide emergency communications services to the community, to assist other civic organizations, to promote the technical craft of amateur radio through class training and testing, to mentor new members, and enhance fellowship among radio amateurs.

The Westside Amateur Radio Club meets on the first Tuesday of the month, 7PM, at the Prudential Kares Realty, 3313 Chili Ave., Rochester, NY 14624. Park / enter on the left side of the building and meet in the lobby.

The talk in repeater for all meetings is the WR2AHL Repeater 146.760MHz - 110.9. AllStar, Echolink, and web streaming connections are available.
Website: <http://WestsideAmateurRadio.club>

INTERLOCK ROCHESTER - K2HAX - ROCHESTER'S HACKERSPACE

Interlock Rochester is open most every Tuesday night at 7pm. We're in the Hungerford Building (1115 East Main Street, Rochester NY), just north of Village Gate. Come to Door #7 (to the left of Comics Etc) and buzz Suite 200. Want to know more? Visit our website at <http://www.interlockroc.org/>, contact us at info@interlockroc.org, or find us in #interlock on Freenode IRC.

ROCHESTER MAKERSPACE

The Rochester Makerspace is located at the rear of 850 St. Paul Street in almost 4,000 square feet of workspace. We are a volunteer-run 501c(3) nonprofit organization and our mission is to encourage learning, creativity and collaboration. We do that by providing low-cost and free access to sophisticated tools, offering a wide variety of classes, and by providing opportunities for "makers," artists and crafts persons of all kinds to meet and learn from each other.

Drop in to explore, learn and make at our weekly open house:
Every Thursday Night, 6 to 10 PM – Weekly Community Night & Open House
Every Saturday, 11 AM to 3 PM – Weekly Community & Open House
Park in the lot at Scrantom St. and Conkey Ave. and follow the signs.

A ham bench is set up with a 2 meter FM radio and a laptop with WebSDR. Waiting for nicer weather to install outside antennas for the Heathkit HW101 transceiver and Kenwood all mode 2 meter transceiver. Donations of ham equipment accepted.

For more information visit <https://www.makerspacerochester.org/hamradio>

GENESEE VALLEY AMATEUR RADIO ASSOCIATION

Email n3dsp@lafireline.net for details.

ASTRONOMY SECTION ROCHESTER ACADEMY OF SCIENCE

For more information visit <http://www.rochesterastronomy.org/>

Pass it forward
by donating your radio
or accessory to RARA.



Your item may be sold at future RARA events with proceeds to benefit RARA members.

You will get a tax-deductible receipt and the satisfaction that comes with doing good for others.

Call 585-210-8910 or email
Secretary@RochesterHam.org.

RARA is an IRS 501.c.3 non-profit

Consult with your tax advisor.

THE AMATEUR'S CODE

Originally written by Paul M. Segal, W9EEA (1928)

THE RADIO AMATEUR IS:

CONSIDERATE	Never knowingly operating in such a way as to lessen the pleasure of others.
LOYAL	Offering loyalty, encouragement and support to other amateurs, local club, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.
PROGRESSIVE	With knowledge abreast of science, a well built and efficient station and operation beyond reproach.
FRIENDLY	With slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.
BALANCED	Radio is an avocation, never interfering with duties owed to family, job, school or community.
PATRIOTIC	With station and skill always ready for service to country and community.

RARA MARKETPLACE

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RARA OFFICERS, DIRECTORS AND COORDINATORS

OFFICERS

President: Tim Guyot, KB1POP	(585) 406-3163	timguyot@gmail.com	Treasurer: Brian O'Connor, KA2CGB	(585) 721-2346	ka2cgb@arrl.net
Vice-President: Scott Theis, W2LW	(845) 774-9809	sa_theis@hotmail.com	Secretary: Ralph Dutcher, KD2BDZ	(585) 738-9949	dutchr@gmail.com

DIRECTORS

Tim Barrett, K9VB	(585) 582-2108	tim.k9vb@gmail.com	Don Kiser, AC2EV	(585) 613-1035	dkiser100@gmail.com
Tim Brown, WB2PAY	(585) 750-2087	tjbrown@rochester.rr.com	Karl Heinz Kremer, K5KHK	(585) 503-7214	k5khk@khk.net
James Burroughs, KN4LSL		jebsar1@yahoo.com	Mike Moore, KC2NM	(585) 721-0011	mikemoore@ieee.org

ACTIVITY COORDINATORS

Club Historian	Ed Gable, K2MP	egable@rochester.rr.com	Public Service	Mike Moore, KC2NM	mikemoore@ieee.org
Club Station Trustee	Jim DiTucci, N2IXD	n2ixd@arrl.net	Raffle Administrator	Forest Shick, WA2MZG	wa2mzg@arrl.net
Education	Tim Brown, WB2PAY	tjbrown@rochester.rr.com	RARA Academy	Tim Brown, WB2PAY Scott Theis, W2LW	tjbrown@rochester.rr.com webmaster@rochesterham.org
Hamfest Co-Producers	Tim Guyot, KB1POP Mike Moore, KC2NM Dave Mitchell, KD2RAF George Lama, KC2OXJ	timguyot@gmail.com mikemoore@ieee.org mitchellbds@gmail.com kc2oxj@gmail.com	RARA RAG Editor	Forest Shick, WA2MZG	editor@rochesterham.org
VE Team	Don Kiser, AC2EV	dkiser100@gmail.com	Refreshments	Kelly Nichols, KD0FOP Robert Mac Donald, KD2OHI	
Media Communications	Tim Guyot, KB1POP	timguyot@gmail.com	Reward Points Administrator	Tim Barrett, K9VB	tim.k9vb@gmail.com
Meeting Audio	Brad Allen, KB2CHY	ballen@frontiernet.net	Venture Crew	Stephen Fell, K2SRF Mark Pedersen, KC2UES	k2srf@rochester.rr.com mpeder21@gmail.com
Membership Secretary	Tim Barrett, K9VB	tim.k9vb@gmail.com	Webmaster	Scott Theis, W2LW	webmaster@rochesterham.org

APRIL RAG DEADLINE

MARCH 15, 2018



**RARA meets at 7PM on the
first **Wednesday** of each month. Join
us at:**

Seneca Waterways Council, BSA Headquarters
2320 Brighton Henrietta Town Line Rd
Rochester, New York 14623

Get Directions

Rochester Area Repeater Listing

THE RARA RAG

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Hotline – (585) 210- 8910
Website – <http://www.rochesterham.org>

ROCHESTER AREA RADIO CLUB CONTACTS

Antique Wireless Association (AWA)
Lynn Bisha, W2BSN: lbisha@rochester.rr.com

Amateur Radio Association of the Southern Tier (ARAST)
Reiner Dieg, N2PEZ: rdieg@yahoo.com

Astronomy Section Rochester Academy of Science
Mark Minarich: mminaric@rochester.rr.com

Community Amateur Radio Club (CARC)
Joe Gangi, AC2NB: ac2nb.carc@gmail.com

Digital Communications Association of Perinton (DCAP)
Gary Skuse, KA1NJL: ka1njl@arri.net

Drumlins Amateur Radio Club Ltd. (DARC)
Alan Cook, K2MPE: alancook948@gmail.com

Fisherman's Net Amateur Radio Club
Jim Sutton, N2OPS: jim@otrym.org

Genesee Valley Amateur Radio Assn.
Bill Boyd, N3DSP: N3DSP@lafireline.net

Keuka Lake Amateur Radio Association (KLARA)
Gary Stratton, KC2YTD: keukelakeara@gmail.com

Monroe County ARES
Jim DiTucci, N2IXD: n2ixd@arri.net

Orleans County Amateur Radio Club (OCARC)
Terry Cook, K2EYS: k2eys@ocarc.us

Rochester Amateur Radio Association (RARA)
Tim Guyot, KB1POP: tinguyot@gmail.com

ROC City Net
Jim Merolillo, K2ZX: k2zx52@gmail.com

Rochester DX Association (RDXA)
Chris Shalvoy, K2CS: cshalvoy@att.net

Rochester Makerspace
David Duckles: rocmakers@gmail.com

Rochester Radio Repeater Association (RRRA)
Bob Shewell, N2HJD: bshewell@frontiernet.net

Rochester VHF Group (RVHFG)
John Stevens, WB2BYP: wb2byp@arri.net

Squaw Island Amateur Radio Club (SIARC)
Steve Benton, WB2VMR: sbenton2@rochester.rr.com

Westside Amateur Radio Club
Justin Grigg, KC2EQU: communications@westsideamateurradio.club

XRX Amateur Radio Club
Brian Donovan, K2AS: k2as@outlook.com

ANNOUNCING

The 5th Annual

2019

NOVICE RIG ROUNDUP!



Warm up your filaments, check your filter caps, dust off your J-38, and join us March 2-10, 2019, for nine days of operating fun. Relive the glory years of 75 watts input and crystal frequency control. Novice-type equipment encouraged, but not required to participate.

*Novice Rig Roundup
Guaranteed to Include:*

*Whoops
Chirps
Drift
Clicks*

... and a Whole Lot of Fun!

WHEN: March 2, 2019, 00:00 UTC to
March 10, 2019, 23:59 UTC

WHERE: 80m, 40m, 15m, 10m, 2m

MORE INFO: <http://novicerigroundup.com>